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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,910	05/22/2001	James Larry Jones	67,010-006/H2603-Sundyne	8725

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EXAMINER

LEO, LEONARD R

ART UNIT PAPER NUMBER

3743

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/862,910

Applicant(s)

JONES, JAMES LARRY

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-6 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,9,10 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election of the species of Figure 3A in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1, 3-6 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Regarding claim 8, the claim depends on claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Figure 1 in view of Litton.

Applicant's Prior Art Figure 1 discloses all the claimed limitations except a helical cooling coil.

Litton discloses a heat exchanger (Figure 3) comprising a heat source 31 and a helical cooling coil 34 for the purpose of providing improved heat transfer.

Since Applicant's Prior Art Figure 1 and Litton are both from the same field of endeavor and/or analogous art, the purpose disclosed by Litton would have been recognized in the pertinent art of Applicant's Prior Art Figure 1.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Applicant's Prior Art Figure 1 a helical cooling coil for the purpose of providing improved heat transfer as recognized by Litton. Clearly, the helical cooling coil 34 is an alternate of the cooling jacket 14 in Figure 1 of <sup>Litton</sup>~~B~~, similar to Applicant's Prior Art Figure 1.

Claims 7, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Figure 1 in view of Litton as applied to claim 10 above, and further in view of Schade, Jr.

The combined teachings of Applicant's Prior Art Figure 1 and Litton lacks mechanically fastening the helical coil.

Schade, Jr. discloses a heat exchanger comprising a heat source 10 and a helical cooling coil 17 mechanically fastened thereto for the purpose of improving structural contact and heat transfer.

Since Applicant's Prior Art Figure 1 and Schade, Jr. are both from the same field of endeavor and/or analogous art, the purpose disclosed by Schade, Jr. would have been recognized in the pertinent art of Applicant's Prior Art Figure 1.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Applicant's Prior Art Figure 1 mechanically fastening the

helical cooling coil for the purpose of improving structural contact and heat transfer as recognized by Schade, Jr.

Regarding claim 13, Schade, Jr. (column 2, lines 30-31) the helical cooling coil can be soldered, which forms a brazed joint.

### ***Response to Arguments***

The rejection in view of Graber et al is withdrawn.

Applicant's remarks with respect to the nonelected species of Figure 3B are moot.

In the originally filed claims, two mutually exclusive species were present, namely Figure 3A and Figure 3B. An election of species requirement was not made. Graber et al anticipated the species of Figure 3A and was deemed an obvious variant of the species of Figure 3B. However, in light of the amendment, applicant believes the species are separately patentable.

No further comments are deemed necessary at this time.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.



LEONARD R. LEO  
PRIMARY EXAMINER  
ART UNIT 3743

October 4, 2002